

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An audio conditioning apparatus ~~(190)~~ for conditioning an audio signal ~~(0)~~ to be output, said audio conditioning apparatus comprising:

an input for receiving the audio signal;

5 - a noise characterizing unit ~~(106, 112)~~ ~~arranged to evaluate for determining~~ a noise level ~~(NM)~~ of environmental noise; ~~and~~

- a volume amplification unit ~~(140)~~ ~~arranged to amplify coupled to said input for amplifying~~ a volume of the audio signal ~~(0)~~ by a volume gain ~~(GV)~~, ~~depending in dependence~~ on the noise level; ~~(NM)~~, characterized in that

10 - a further noise characterizing unit ~~(110, 116)~~, ~~(108, 114)~~ ~~is comprised, arranged to evaluate for determining~~ a further noise level ~~(NL or NH)~~ of the environmental noise in a bass frequency noise band ~~(111)~~ or a treble frequency noise band; ~~(109)~~, and

15 - a further amplification unit ~~(150 or 152)~~ ~~is comprised, arranged to amplify coupled to said volume amplification unit for amplifying~~ by a further gain ~~(GB or GT)~~ the amplitude of frequency components in a bass frequency audio band ~~(202)~~ ~~respectively or~~ a treble frequency audio band ~~(206)~~ of the audio signal ~~(0)~~, in dependence of the further noise level ~~(NL respectively NH)~~ in the base or treble frequency band, respectively,

20 wherein said audio conditioning apparatus further comprises:

25 | a gain dispatcher unit coupled to said input for
| allocating a maximum allowable gain of the volume amplification
| unit and the further amplification unit on the basis of available
| headroom for amplification.

| 2. (Currently Amended) ~~An~~ The audio conditioning apparatus
| ~~(190) according to~~ as claimed in claim 1, wherein an upper limit of
| the bass frequency audio band ~~(202)~~ substantially lies in the range
| of 60 to 150 Hz, and wherein a lower limit of the treble frequency
5 | audio band substantially lies in the range of 8kHz to 12 kHz.

| 3. (Currently Amended) ~~An~~ The audio conditioning apparatus
| ~~(190) according to~~ as claimed in claim 1, wherein said audio
| conditioning apparatus further comprises:
| a gain consistency unit ~~(124, 126, 128)~~ is comprised
5 | ~~arranged to yield~~ coupled to said noise characterizing unit and said
| further noise characterizing unit for yielding a gain ~~(GV, GB, GT)~~
| consistently varying in time, according to a predetermined
| mathematical criterion.

| 4. (Cancelled).

| 5. (Currently Amended) ~~An~~ The audio conditioning apparatus
| ~~(190) according to~~ as claimed in claim 1, wherein the further
| amplification unit ~~(150 or 152)~~ comprises a shelving filter.

6. (Currently Amended) ~~An~~The audio conditioning apparatus
~~(190) according to~~as claimed in claim 1, wherein said audio
conditioning apparatus is connectable to a headphone loudspeaker
usable for reproduction of the audio signal ~~(Θ)~~, and wherein said
5 audio conditioning apparatus further comprises an active noise
canceling unit ~~(540) is comprised arranged to~~for substantially
~~cancel~~cancelling environmental noise in a cancellation band of
frequencies, the environmental noise being measurable by a
microphone ~~(104)~~.

7. (Currently Amended) ~~An~~The audio conditioning apparatus
~~(190) according to~~as claimed in claim 6, wherein said audio
conditioning apparatus further comprises a distance measuring
device ~~(599) is comprised arranged to measure~~for measuring a
5 distance between the microphone ~~(104)~~ and the headphone
loudspeaker.

8. (Currently Amended) An audio reproduction apparatus,
comprising:

- a loudspeaker ~~(160)~~ for reproduction of ~~the~~ an audio
signal ~~(Θ)~~;
- 5 - an access ~~(102)~~ to an input audio signal ~~(i)~~ on which the
audio signal ~~(Θ)~~ is based; and
- ~~an~~ the audio conditioning apparatus ~~(190)~~ as claimed in
claim 1.

9. (Currently Amended) A method of conditioning an audio signal Θ , ~~comprising the steps of:~~

- ~~evaluating~~ determining a noise level NM of environmental noise; ~~and~~

5 - amplifying a volume of the audio signal Θ by a volume gain GV , ~~depending in dependence~~ on the noise level; NM , ~~characterized in that~~

- determining a further noise level NL ~~or NH~~ of the environmental noise in a bass frequency noise band or a treble

10 frequency noise band ~~is evaluated,~~ and

- ~~the amplitude of~~ amplifying frequency components in a bass frequency audio band ~~respectively or~~ a treble frequency audio band of the audio signal Θ ~~is amplified by~~ a further gain GB , GT , ~~in dependence of the further noise level NL , NH in the bass frequency~~
15 noise band or the treble frequency noise band, respectively,

wherein said method further comprises the step of:

allocating a maximum allowable gain of said amplifying steps on the basis of available headroom for amplification.

10. (Currently Amended) A computer readable medium containing a computer program product enabling a processor to execute the method
of as claimed in claim 9.